

REPRESENTED BY
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NUCOR-MATE POWER SUPPLIES DIRECT APPROACH TO EXCELLENCE

N U C L E A R C O R P O R A T I O N O F A M E R I C A



THE NUCOR "DIRECT APPROACH" CONCEPT

ANSWERS YOUR BUY OR BUILD DECISION BECAUSE IT TURNS YOUR
SPECIFICATIONS INTO TANGIBLE RESULTS

The more sophisticated and more advanced your electronic system, the more critical are the demands on the power supply. But NO SYSTEM DESIGN — no matter how "far-out," needs to be restricted because of the limited capabilities of a power supply.

You design in the requirements — A NUCOR-MATE power supply will fill them. You need concern yourself no longer with the power supply

— THIS IS NUCOR-MATE — THE DIRECT APPROACH TO MATED POWER . . . mated to your delivery schedule — mated to your specifications — mated to your budget.

Look to the NUCOR-MATE engineering staff when you have a need for a direct line for performance-assured power supplies . . . to advanced research and development . . . to prototype or pilot production . . . to quantity production.

THE NEW LOOK IN POWER SUPPLIES

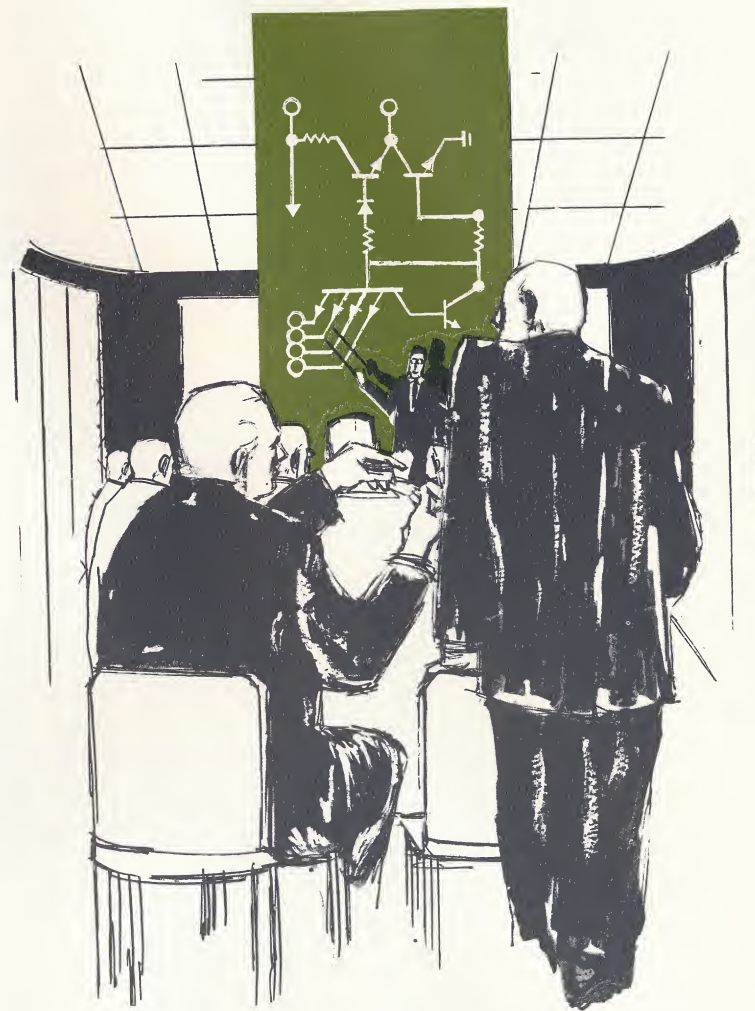
IS 15 YEARS OLD AT NUCOR

NUCOR engineers have been designing and testing power supplies since 1950, looking for ways to improve them. The basic design remains the same — actually the exacting specifications of voltage, ripple, regulation, and currents haven't changed very much. But a number of improvements to satisfy space age environmental conditions (66 to be exact) have been made and the product line has been widened.

Each year the testing continues . . . load life tests, temperature tests, shock and vibration tests, every test imaginable. Whether our orders were for 5 or 25, 1,000 or 14,000 units, the same degree of quality was built-in to every unit assuring long trouble-free performance.

Every NUCOR-MATE supply is subjected to our "three-phase" performance testing program. First, incoming inspection of components — transistors, diodes, heat sinks, capacitors, every component right down to the screws for the case. Second, rigid in process inspection and calibration during production. Third, all NUCOR-MATE supplies are aged at 75°C for a minimum of 24 hours and retested for performance specification before releasing for shipping.

A NUCOR-MATE customer knows what this means — a NO-TROUBLE end product. You will find time-tested circuitry and high stability NUCOR-MATE power supplies are the "perfect" mate for your quality equipment.



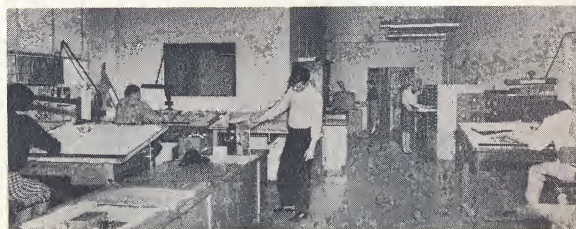
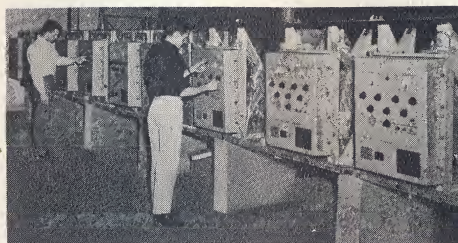
INSURED CAPABILITY

NUCOR'S direct engineering approach and specialization is of primary importance in answering the exacting requirements of today's military and industrial technology. But behind the engineering ability is the "support capability" of space, facilities, resources, and skilled technical and managerial personnel.

Over 35,000 square feet of manufacturing and administrative space on a six acre site.
Facilities for Prototype or Full Production Runs.
Advanced Product Department to Investigate New Technical Developments.
Fully Equipped Laboratory for Reliability Studies and General Qualification Testing.

SPECIAL CAPABILITY . . . Today's complex nuclear technology has brought about an entirely new set of requirements. Because of our extensive experience with radioactive isotopes and radiation measuring instruments, the NUCOR-MATE team and associates at Nucor is in a unique position to insure that the power supply conceived and built today will continue to give reliable service even under the exacting requirements brought about by the atomic age.







nucor-mate modules and

HIGH RELIABILITY PERFORMANCE-ENGINEERED POWER SUPPLIES FOR ALL APPLICATIONS

FULL SOLID-STATE CIRCUITRY

Silicon transistors used exclusively at no premium cost

EXCLUSIVE SELF-COOLING 75°C DESIGN

Optimum air flow — no additional heat sinks or fans required

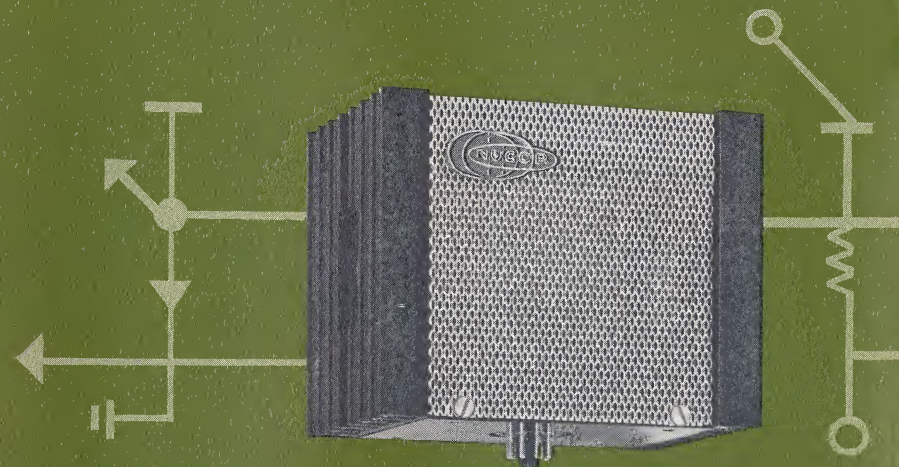
ELECTRONIC SHORT CIRCUIT AND OVERLOAD PROTECTION

Instant recovery — no fuses

MIL-E-16400, MIL-E-4158, SCL-6200

and related MIL-SPECIFICATION design and construction
available on all models

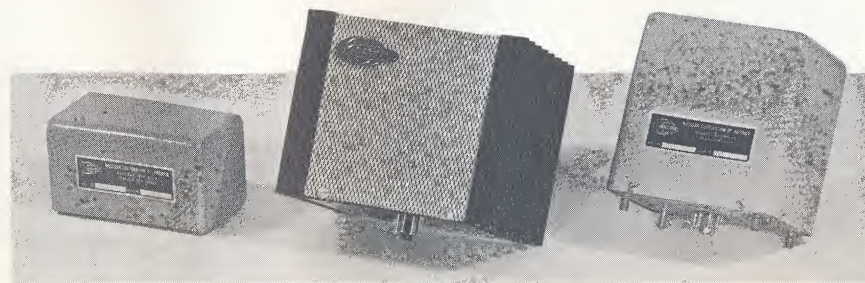
STANDARD MODELS — 47-440 Cycle AC Inputs

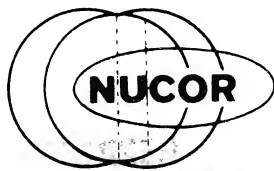


NUCOR-MATE "DIRECT APPROACH" to CUSTOM DESIGNS

The NUCOR-MATE "direct approach" achieves tangible results without delay, whether it be for prototype or quantity production, multi-output or subminiature designs, solid state or magnetic designs.

NUCOR-MATE'S "direct approach" is mated to your specifications, quality, delivery schedule and budget. All models available in AC-DC, DC-DC, DC-AC, AC-AC





POWER SUPPLIES

65°C OPERATION

(DC OUTPUT)

PRICES

<u>VOLTS</u>	<u>AMPS</u>	<u>SIZE</u>	<u>MODEL</u>	<u>1-4</u>	<u>5-9</u>	<u>10-24</u>	<u>25-49</u>
5	5	UA	NUR55L	69.00	64.00	59.00	55.00
5	10	UA	NUR510L	89.00	79.00	74.00	71.00
6	5	UA	NUR65L	74.00	64.00	69.00	59.00
6	10	UA	NUR610L	96.00	86.00	81.00	77.00
10	5	UA	NUR105L	84.00	74.00	69.00	67.00
10	10	UB	NUR1010L	125.00	115.00	105.00	98.00
12	5	UA	NUR125L	86.00	76.00	71.00	67.00
12	10	UB	NUR1210L	134.00	124.00	119.00	104.00
15	5	UA	NUR155L	89.00	79.00	84.00	72.00
15	10	UB	NUR1510L	149.00	139.00	134.00	119.00
18	5	UB	NUR185L	144.00	134.00	129.00	116.00
18	10	UC	NUR1810L	169.00	159.00	154.00	136.00
20	5	UB	NUR205L	154.00	144.00	139.00	124.00
20	10	UC	NUR2010L	179.00	169.00	164.00	144.00
24	5	UB	NUR245L	164.00	154.00	149.00	129.00
24	10	UC	NUR2410L	199.00	189.00	184.00	158.00
28	5	UB	NUR285L	174.00	164.00	159.00	139.00
28	10	UC	NUR2810L	209.00	189.00	184.00	167.00

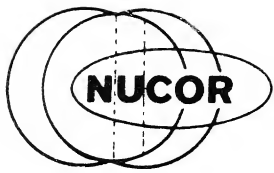
85°C OPERATION

5	5	UA	NUR55H	79.00	69.00	64.00	59.00
5	10	UA	NUR510H	99.00	89.00	84.00	79.00
6	5	UA	NUR65H	84.00	74.00	69.00	64.00
6	10	UA	NUR610H	106.00	96.00	91.00	86.00
10	5	UA	NUR105H	94.00	84.00	79.00	74.00
10	10	UB	NUR1010H	134.00	124.00	119.00	108.00
12	5	UA	NUR125H	96.00	86.00	81.00	77.00
12	10	UB	NUR1210H	144.00	134.00	129.00	115.00
15	5	UA	NUR155H	99.00	89.00	84.00	81.00
15	10	UB	NUR1510H	159.00	149.00	144.00	128.00
18	5	UB	NUR185H	154.00	144.00	139.00	124.00
18	10	UC	NUR1810H	179.00	169.00	164.00	144.00
20	5	UB	NUR205H	164.00	154.00	149.00	132.00
20	10	UC	NUR2010H	189.00	179.00	174.00	152.00
24	5	UB	NUR245H	174.00	164.00	159.00	139.00
24	10	UC	NUR2410H	209.00	199.00	194.00	168.00
28	5	UB	NUR285H	184.00	174.00	169.00	148.00
28	10	UC	NUR2810H	219.00	209.00	204.00	176.00

nuclear corporation of america

ELECTRO-NUCLEAR DIVISION

2 RICHWOOD PLACE, DENVILLE, NEW JERSEY 07834 (201) OAKWOOD 7-4200



Solid State **POWER SUPPLIES**

NUR LOW COST **SERIES**

The NUR series of "easy mount" power supplies are designed for applications where extremely precise voltages are not essential and provide reliable DC power for integration into computers, amplifiers, relay circuitry, filament powers, and other similar equipments. The 85°C series is acceptable for installation into military grade systems since all parameters relative to the military environment have been considered in the design. Filtering and ripple reduction are accomplished by simple capacitor filtering thus eliminating any transients that may be introduced by rapid or inductive load switching.

DESIGN FEATURES

CERTIFIED MIL spec design to meet the military environment of shock ... vibration ... humidity

MTBF rating over 290,000 hours.

Transformers per MIL-T-27B.

Capacitors: Computer grade
-20°C to + 85°C operation.

Rectifiers: All silicon type used.

Construction: Rugged and serviceable.
Black anodize finish.

Capacitive filtering: No transients.

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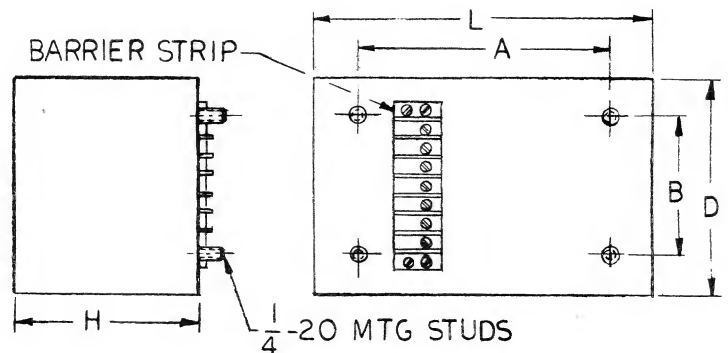
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SPECIFICATIONS

Input: 115VAC; 50-400 cps.
Regulation: Approximately 10% for 1/2 load change.
Polarity: Isolated output - either polarity may be grounded.
Output Voltage: Varies with input voltage and frequency - nominally $\pm 5\%$ at 115VAC, 60 cps input.
Ripple: Approximately 5% at 50 cps; proportionally less at 400 cps.
Components: 85°C units contain: MIL spec. transformers, premium grade electrolytic capacitors, MIL spec. silicon diodes, MIL standard hardware and finish.

MECHANICAL SPECIFICATIONS

CASE SIZE	<u>D</u>	<u>L</u>	<u>H</u>	<u>A</u>	<u>B</u>
UA	4-3/4	6	5-1/2	4-3/4	4
UB	4-7/8	7-7/8	5-1/2	6-3/4	3-3/4
UC	4-3/4	8-1/2	5-1/2	4-1/2	3



Barrier strip terminals are 601 series.

For specific 400 cps operation, a smaller can size is used. For example a 50 cps module housed in a UC can, as shown above, gets housed in a UB can for 400 cps.

Tantalum capacitors can be supplied at additional cost. Contact factory or your area representative for prompt quotation.

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